I Claim:

1. A valve comprising:

a valve housing having an elongate chamber therein, an inlet for fluid on said valve housing communicating with said chamber, and first and second discharges on said valve housing communicating with said chamber, said first discharge including first and second openings for discharging the fluid from said valve housing;

a stationary member in said chamber having a plurality of openings therethrough at least some of which align with said inlet for fluid and said first and second openings of said first discharge and said second discharge, said stationary member generally conforming in shape and size to the shape and size of said chamber; and

a switch member in said stationary member, said switch member being rotatable between spray, stream and service positions respectively to direct the fluid to said first opening so that it is discharged from said first discharge in the form of a spray when in said spray position, to direct the fluid to said second opening so that it is discharged from said first discharge as a stream when in said stream position, and to direct the fluid to said second discharge on said valve housing to discharge the fluid as service fluid from the valve housing when in said service position.

2. The valve of claim 1, wherein said stationary member comprises a gasket.

3. The valve of claim 1, wherein said stationary member includes at least one seal thereon which blocks communication between said inlet and selected ones of said first and second openings and/or discharges when said switch member is rotated between said positions.

4. The valve of claim 1, wherein said chamber, said stationary member and said switch member are generally cylindrical in cross-section.

5. The valve of claim 1, wherein said first discharge on said valve housing includes a cap overlying said first and second openings, said cap comprising a plurality of small openings and at least one large opening spaced from said small openings, and wherein

said first opening of said first discharge is aligned with said plurality of small openings to discharge the fluid from said plurality of small openings of said cap as a spray when said switch member is in said spray position, and said second opening of said first discharge is aligned with said large opening of said cap to discharge the fluid from said large opening as a stream when said switch member is in said stream position.

6. The valve of claim 1, wherein said valve housing includes a substantially cylindrical portion, and said second discharge on said valve housing is on said substantially cylindrical portion and includes a passage which extends for a substantial distance around said substantially cylindrical portion.

7. The valve of claim 6, including a control ring at said substantially cylindrical portion which covers said passage, said control ring including a port therethrough for discharging said service fluid, and said control ring and port are rotatable about said substantially cylindrical portion to selectively direct the discharge of the service fluid.

8. The valve of claim 1, including an adapter for mounting said inlet for fluid on the valve housing to the discharge of a faucet.

9. The valve of claim 2, wherein said chamber, said stationary member and said switch member are generally cylindrical in cross section; said first discharge on said valve housing includes a cap overlying said first and second openings, said cap comprising a plurality of small openings and at least one large opening spaced from said small openings, and wherein said first opening of said first discharge is aligned with said plurality of small openings to discharge the fluid from said plurality of small openings of said cap as a spray when said switch member is in said spray position, said second opening of said first discharge is aligned with said large opening of said cap to discharge the fluid from said large opening as a stream when said switch member is in said stream position; and wherein said valve housing includes a substantially cylindrical portion and said second discharge on said valve housing is on said substantially cylindrical portion and includes a passage which extends for a substantial distance around said substantially cylindrical portion.

10. The valve of claim 9, including a control ring at said substantially cylindrical portion which covers said passage, said control ring including a port therethrough for discharging said service fluid, and said control ring and port are rotatable about said substantially cylindrical portion to selectively direct the discharge of the service fluid.

11. The valve of claim 9, including an adapter for mounting said inlet for fluid on the valve housing to the discharge of a faucet.

12. The valve of claim 9, wherein said stationary member includes at least one seal thereon which blocks communication between said inlet and selected ones of said first and second openings and/or discharges when said switch member is rotated between said positions.

13. The valve of claim 9, including a slide member in said chamber which is movable longitudinally between a first position in which said switch member is functional in said spray, stream and service positions, and a second position in which said switch member is not functional in the last three mentioned positions.

14. The valve of claim 13, wherein said second position of said slide member is a backflush position in which the fluid is directed from said inlet for fluid on said valve housing to said second opening of said first discharge.

15. The valve of claim 13, wherein said slide member is in said stationary member and said switch member.

16. The valve of claim 1, including a slide member in said chamber which is movable longitudinally between a first position in which said switch member is functional in said spray, stream and service positions, and a second position in which said switch member is not functional in the last three mentioned positions.

17. The valve of claim 16, wherein said second position of said slide member is a backflush position in which the fluid is directed from said inlet for fluid on said valve housing to said second opening of said first discharge.

18. The valve of claim 13, wherein said slide member is in said stationary member and said switch member.

19. A water treatment unit comprising:

a treatment housing containing a water treatment medium therein;

a valve having an elongate chamber, an inlet for water opening to and communicating with said chamber, and first and second discharges on said valve communicating with said chamber, said first discharge including first and second openings for discharging the water from said chamber;

a stationary member in said chamber having a plurality of openings therethrough at least some of which align with said inlet for water and said first and second openings of said first discharge and said second discharge, said stationary member generally conforming in shape and size to the shape and size of said chamber; and

a switch member in said stationary member, said switch member being rotatable between spray, stream and service positions respectively to direct the water through said treatment housing and water treatment medium to said first opening so that it is discharged from said first discharge in the form of a spray when in said spray position, to direct the water through said treatment housing and water treatment medium to said second opening so that it is discharged from said first discharge as a stream when in said stream position, and to direct the water through said treatment housing and water treatment medium to a second discharge on said valve to discharge the water as service water from the valve housing when in said service position.

20. The water treatment unit of claim 19, wherein said stationary member comprises a gasket.

21. The water treatment of claim 19, wherein said stationary member includes at least one seal thereon which blocks communication between said inlet and selected ones of said

first and second openings and/or discharges when said switch member is rotated between said positions.

22. The water treatment unit of claim 19, wherein said chamber, said stationary member and said switch member are generally cylindrical in cross-section.

23. The water treatment unit of claim 19, wherein said first discharge includes a cap overlying said first and second openings, said cap comprising a plurality of small openings and at least one large opening spaced from said small openings, and wherein said first opening of said first discharge is aligned with said plurality of small openings to discharge the water from said plurality of small openings of said cap as a spray when said switch member is in said spray position, and said second opening of said first discharge is aligned with said large opening of said cap to discharge the water from said large opening as a stream when said switch member is in said stream position.

24. The water treatment unit of claim 19, wherein said valve includes a substantially cylindrical portion and said second discharge on said valve is on said substantially cylindrical portion and includes a passage which extends for a substantial distance around said substantially cylindrical portion.

25. The water treatment unit of claim 24, including a control ring at said substantially cylindrical portion which covers said passage, said control ring including a port therethrough for discharging said service water, and said control ring and port are rotatable about said substantially cylindrical portion to selectively direct the discharge of the service water.

26. The water treatment unit of claim 19, including an adapter for mounting said inlet for water on the valve to the discharge of a faucet.

27. The water treatment unit of claim 20, wherein said chamber, said stationary member and said switch member are generally cylindrical in cross-section; said first discharge on said valve includes a cap overlying said first and second openings, said cap comprising a

plurality of small openings and at least one large opening spaced from said small openings, and wherein said first opening of said first discharge is aligned with said plurality of small openings to discharge the water from said plurality of small openings of said cap as a spray when said switch member is in said spray position, said second opening of said first discharge is aligned with said large opening of said cap to discharge the water from said large opening as a stream when said switch member is in said stream position; and wherein the valve includes a substantially cylindrical portion and said second discharge on the valve is on said substantially cylindrical portion and includes a passage which extends for a substantial distance around said substantially cylindrical portion.

28. The water treatment unit of claim 27, including a control ring at said substantially cylindrical portion which covers said passage, said control ring including a port therethrough for discharging said service water, and said control ring and port are rotatable about said substantially cylindrical portion to selectively direct the discharge of the service water.

29. The water treatment unit of claim 27, including an adapter for mounting said inlet for water on the valve to the discharge of a faucet.

30. The water treatment unit of claim 27, including a slide member in said chamber which is movable longitudinally between a first position in which said switch member is functional in said spray, stream and service positions, and a second position in which the water passes in the reverse direction through said treatment housing and water treatment medium to backflush the medium.

31. The water treatment unit of claim 30, wherein when said slide member is in said second position, the water is directed from said inlet for water through said treatment housing and in the reverse direction through said water treatment medium to said second opening of said first discharge and is discharged therefrom as a stream.

32. The water treatment unit of claim 30, wherein said slide member is in said stationary member and said switch member.

33. The water treatment unit of claim 19, including a slide member in said chamber which is movable longitudinally between a first position in which said switch member is functional in said spray, stream and service positions, and a second position in which the water passes in the reverse direction through said treatment housing and water treatment medium to backflush the medium.

34. The water treatment unit of claim 33, wherein when said slide member is in said second position, the water is directed from said inlet for water through said treatment housing and in the reverse direction through said water treatment medium to said second opening of said first discharge.

35. The water treatment unit of claim 30, wherein said slide member is in said stationary member and said switch member.

36. The water treatment unit of claim 19, wherein said treatment housing contains at least two distinct water treatment media, and said water passes through at least one of said media when said switch member is in either of said spray, stream or service positions or said slide member is in either of its first or second positions.

37. The water treatment unit of claim 36, wherein the water passes through both water treatment media when said switch member is in said service position.

38. The water treatment unit of claim 36, wherein the water treatment media is a finely divided metal particulate and/or charcoal.

39. The water treatment unit of claim 19, wherein said treatment housing includes a projection thereon which extends into said chamber of said valve, and wherein said projection includes at least one passage therethrough and/or together with said chamber

defines at least one passage therearound, through which the water flows to and/or from said water treatment medium in said treatment housing.

40. The water treatment unit of claim 39, wherein said projection has an end opposite said treatment housing, and said last mentioned end is located in said stationary member and said switch member.

41. The water treatment unit of claim 27, wherein said treatment housing includes a projection thereon which extends into said chamber of said valve, and wherein said projection includes at least one passage therethrough and/or together with said chamber defines at least one passage therearound, through which the water flows to and/or from said water treatment medium in said treatment housing.

42. The water treatment unit of claim 41, wherein said projection has an end opposite said treatment housing, and said last mentioned end is located in said stationary member and said switch member.

43. The water treatment unit of claim 33, wherein said treatment housing includes a projection thereon which extends into said chamber of said valve, and wherein said projection includes at least one passage therethrough and/or together with said chamber defines at least one passage therearound, through which the water flows to and/or from said water treatment medium in said treatment housing.

44. The water treatment unit of claim 43, wherein said projection has an end opposite said treatment housing, and said last mentioned end is located in said stationary member and said switch member.

45. The water treatment unit of claim 19, including at least one sensor for sensing the amount of water flow through said unit.

46. The water treatment unit of claim 45, wherein said sensor is located in said valve housing.